

WHAT IS CLAIMED IS:

1 1. A monitoring system for a vehicle, comprising:
2 a diagnostic system configured to receive sensor information from at least one
3 sensor mounted on the vehicle;
4 a vehicle operator interface configured to receive input from a vehicle operator
5 and to display a plurality of prompts to the vehicle operator according to a predetermined
6 algorithm,
7 a wireless communication device on board the vehicle, the wireless
8 communication device coupled to the diagnostic system to communicate sensor information from
9 the diagnostic system and coupled to the vehicle operator interface to communicate input from
10 the vehicle operator interface;
11 a remote central data center in wireless communication with the wireless
12 communication device and receiving sensor information and input from the vehicle operator
13 interface; and
14 a communications network coupled to the remote central data center.

1 2. The monitoring systems of claim 1, further comprising:
2 a technical support group interface coupled to the communications network.

1 3. The monitoring system of claim 1, further comprising:
2 a fleet management information center interface coupled to the communications
3 network.

1 4. The monitoring system of claim 1, further comprising:
2 an equipment maintenance center interface coupled to the communications
3 network.

1 5. The monitoring system of claim 1, further comprising:
2 a dealer service center interface coupled to the communications network.

1 6. An off-highway work vehicle comprising:
2 a diagnostic system configured to receive sensor information from at least one
3 vehicle sensor mounted on the off-highway work vehicle;
4 an operator interface configured to receive input from a vehicle operator and to
5 display a plurality of prompts to the vehicle operator according to a predetermined algorithm; and
6 an onboard fleet management system coupled to the diagnostic system to receive
7 sensor information from the diagnostic system and coupled to the operator interface to receive
8 input from the operator interface; and
9 a wireless communication device coupled to the onboard fleet management
10 system to communicate sensor information and operator input from the operator interface to a
11 data receiver.

1 7. The off-highway work vehicle of claim 6 wherein the onboard fleet
2 management system further comprises:
3 a microprocessor configured to receive sensor information from the diagnostic
4 system and operator input from the operator interface.

1 8. The off-highway work vehicle of claim 6 wherein the wireless
2 communication device comprises a modem and transmitter coupled to the onboard fleet
3 management system.

1 9. The off-highway work vehicle of claim 8 wherein the transmitter is
2 configured to transmit a cellular telephone signal.

1 10. The off-highway work vehicle of claim 8 wherein the transmitter is
2 configured to transmit a satellite communications signal.

1 11. The off-highway work vehicle of claim 6 wherein the operator prompts are
2 a succession of questions for the operator and wherein the operator interface is configured to
3 accept responses to the operator prompts.

1 12. The off-highway work vehicle of claim 11 wherein the predetermined
2 algorithm is a decision tree and wherein the responses are stored as a data character string.

1 13. The off-highway work vehicle of claim 6 wherein the data receiver is a
2 remote central data center.

1 14. A method for monitoring a work vehicle comprising:
2 retrieving inputs from an operator on the vehicle;
3 retrieving sensor information from at least one sensor connected to the vehicle;
4 running a diagnostics algorithm configured to provide diagnostics information
5 based on at least some of the inputs from the operator and the sensor information; and
6 communicating the diagnostics information to a data receiver via a wireless
7 communication data link.

1 15. The method of claim 14 wherein the data receiver is a remote data center.

1 16. The method of claim 15 wherein the retrieving inputs from an operator
2 uses a decision tree algorithm to determine decision tree data.

1 17. The method of claim 16 wherein the diagnostics information is the
2 decision tree data.

1 18. A fleet management system for a work vehicle comprising:
2 a microprocessor on the work vehicle;
3 an operator interface on-board the work vehicle coupled to the microprocessor and
4 configured to receive inputs from a vehicle operator;

5 a diagnostics algorithm configured to provide diagnostics information based on
6 the inputs received from the operator; and
7 a wireless data link configured to communicate the diagnostics information to a
8 remote data receiver.

1 19. The fleet management system of claim 18 further comprising:
2 at least one vehicle sensor coupled to the vehicle and configured to supply sensor
3 information to the diagnostics algorithm.

1 20. The fleet management system of claim 18 wherein the wireless
2 communication device further comprises:
3 a modem coupled to the microprocessor and a transmitter coupled to the modem.

1 21. The fleet management system of claim 18 wherein the operator interface is
2 configured to display a series of operator questions.

1 22. The fleet management system of claim 21 wherein the operator interface is
2 configured to accept responses to the operator questions.

1 23. The fleet management system of claim 22 wherein the plurality of operator
2 questions are derived from a decision tree.

1 24. The fleet management system of claim 23 wherein the responses are stored
2 as a data character string.